ABSTRACT

[077]   Given a record of instrument values over time, a user can mark the record to select the values of particular instruments during particular time ranges. They can further indicate the events (states) associated with those values and time ranges. These markings define the topology of the PNN. The selected instruments define the input nodes of the PNN and the event(s) detected, define the class nodes wherein each event has a corresponding positive class node and a corresponding negative class node. Upon constructing the PNN, training cases may be added to further refine the knowledge of the neural network in a time efficient manner. Because the optimal value of sigma varies little over training set sizes, training cases may be incrementally added to the PNN, further adding to its recognition capabilities, without having to train the PNN on the new cases or re-train the PNN on the old cases. As such, patient specific neural networks may be created in a time and cost efficient manner.